



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,803	10/16/2003	Uri L. Zilberman	25771-X	5141
20529	7590	06/11/2008		
NATH & ASSOCIATES 112 South West Street Alexandria, VA 22314			EXAMINER BUMGARNER, MELBA N	
			ART UNIT 3732	PAPER NUMBER
			MAIL DATE 06/11/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/685,803

**Applicant(s)**

ZILBERMAN, URI L.

**Examiner**

Melba Bumgarner

**Art Unit**

3732

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) 11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

1. Newly submitted claim 11 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: claim 11 and present claims are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the product can be made by another and materially different process with other thermoplastic polymer and machining.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 11 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy (4,129,946) in view of Dougherty (3,647,498). Kennedy discloses a dental crown 10 configured to be readily mountable in a patient's mouth as part of a treatment having a natural appearance of

a vital tooth comprising a tooth shaped top surface 12 and depending flexible side surfaces 15,16,17 extending continuously around edges of the top surface and from a tooth shaped top surface end of the dental crown to an end opposite the end 13 of the dental crown (column 5 line 10), the crown being formed of a thermoplastic material (column 1 line 63) which has dimensional stability and sufficient resilience, at least one of the side surfaces form an undercut defining an inwardly directed bottom portion (figure 4); however, Kennedy does not show crown of the color of vital tooth. Dougherty teaches dental crown (material) being subtly colored. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the crown to having subtle coloring in order to have a crown simulate natural tooth. Dougherty shows thermoplastic material of polymethylmethacrylate and further comprising pigment or filler. It would have been obvious to one of ordinary skill in the art as to the process and intermediate products used in the process by which the dental crown is made, for example, injection molding and multi-element mold, because a product claim is properly met if the final product is shown regardless of the process used.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kennedy in view of Dougherty and further in view of Karmaker et al. (6,186,790). The modified dental crown of Kennedy and Dougherty shows the limitations as described above; however, they do not show polymer material as claimed. Karmaker et al. teach a dental crown formed of a variety of thermoplastic polymer material including polycarbonate, polysulfone, polyacetal, polyacrylate and polymethacrylate. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use a polyacetal polymer of Karmaker et al., because Karmaker et al. teach the material was known as art-recognized equivalent material at the time the

invention was made in forming dental components including crown forms. Furthermore, a specific polymer material is not disclosed as critical to the claimed invention. It is noted that Karmaker et al. also show dental crown formed of a variety of processes including injection molding, compression molding and machining.

***Response to Arguments***

5. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection. It is noted that the portion at open gingival end 13 of Kennedy shows an undercut. In response to Applicant's argument against the Karmaker et al., it is noted that the reference is used to teach the material of the crown, not the feature of the crown shown in Kennedy.

***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melba Bumgarner whose telephone number is 571-272-4709. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached at 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3732

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Melba Bumgarner/  
Primary Examiner, Art Unit 3732